

CleanWater Services

Stormwater Design Standards



Oregon ACWA
Stormwater Summit
May 5, 2010
Carrie Pak

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CELEBRATING 40 YEARS OF CLEAN WATER

Stormwater Design Standards



- Design and Construction Standards
- Low Impact Development Approaches (LIDA)
- Developing Stormwater Standards
- Experience Implementing LIDA Standards

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CWS Design and Construction Standards

In combination with other state, federal and local laws and ordinances, CWS's Design and Construction Standards:

- Protect the beneficial uses of water resources of the Tualatin River Basin
- Prevent or reduce adverse impacts to the drainage systems and water resources
- Outline design requirements for sanitary sewer, storm sewer and surface water management.


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What Goes into Designing a Standard?

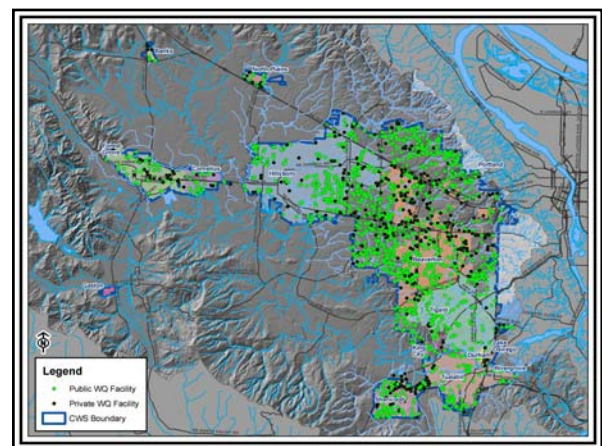
- Define need for change or new standards
- Develop basic design or model based on best science, current practices, and local conditions
- Determine impacts to existing processes for permitting, construction, inspection, maintenance, and enforcement (time, resources, cost)
- Stakeholder Involvement

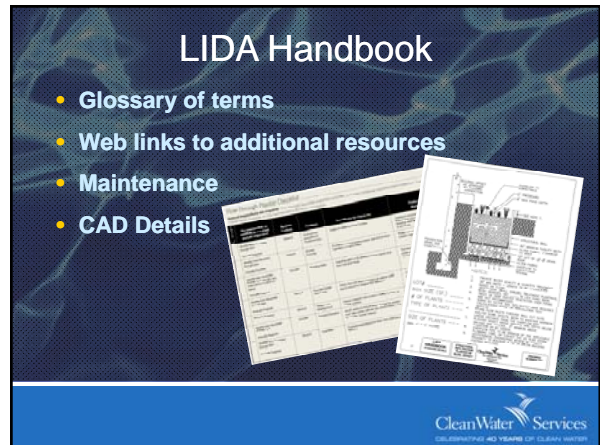
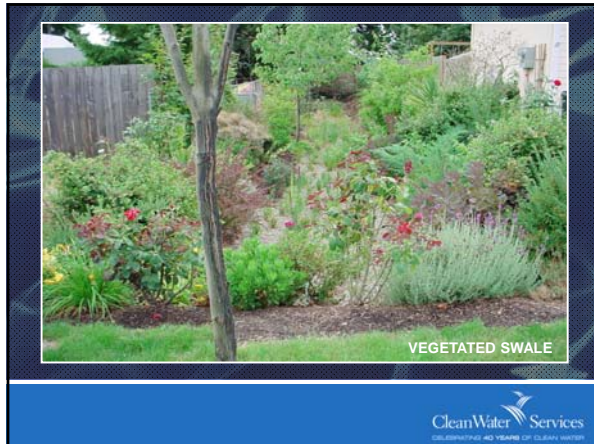
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The D&C & the LIDA Handbook




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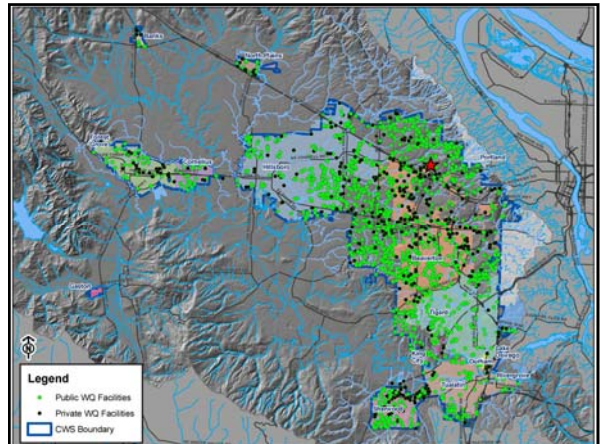





You Don't Know




What You Don't Know

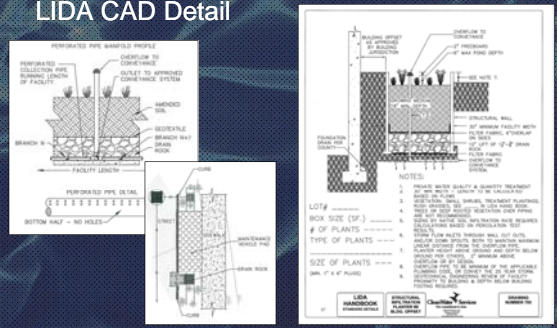
Terra Linda LIDA Pilot



- Developed in mid- 1960s
- Some treatment facilities associated with recent road projects
- Active citizen group
- 1.5+ yr of "courting" and locating street bump-out
- Total area: ~2.7 imp ac
- Cost: \$11,800/imp acres



LIDA CAD Detail



NOTES:

1. GRAVEL WATER QUALITY & QUANTITY TREATED?
2. GRAVEL WATER QUALITY & QUANTITY TREATED?
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8. GRAVEL WATER QUALITY & QUANTITY TREATED?
9. GRAVEL WATER QUALITY & QUANTITY TREATED?
10. GRAVEL WATER QUALITY & QUANTITY TREATED?

LOT# _____


BOX SIZE (SF) _____

OF PLANTS _____

TYPE OF PLANTS _____

SIZE OF PLANTS _____

SEE P. 1 & 2 OF PLAN



Terra Linda Lessons Learned





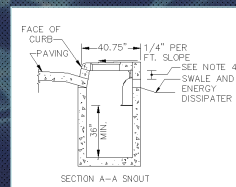
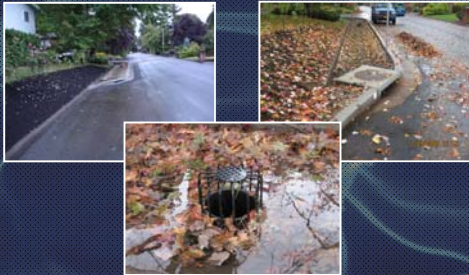

Where is the Curb Cut?



Overflow Elevation



Existing Vegetation



Everything is coming up rosy



April 22, 2010



April 27, 2010

For More Information

- **To access the Handbook:**
 - Clean Water Services Website
 - <http://www.cleanwaterservices.org/LIDA>
- **Carrie Pak**
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